



ecology and environment, inc.

International Specialists in the Environment

130 Battery Street #400,
San Francisco, California 94111
Tel: (415) 981-2811, Fax: (415) 981-0801

July 13, 2006

Ms. Kathi Hann
BHP Billiton LNG International, Inc.
300 Esplanade Drive Suite 1800
Oxnard, CA 93036 USA

Dear Kathi:

We have received and reviewed your response to Data Gap #3 dated 6/23/06 and require more rigorous, better substantiated information from BHPB. On behalf of the US Coast Guard, the California State Lands Commission, and MARAD, we are requesting that you respond to the questions below about the details of how BHPB plans to use LNG-fueled support vessels. The agencies must assess the potential hazards associated with BHPB's plan, and the additional information is required for a better understanding of both your plan and the current state of LNG use in marine transportation and other modes of transportation.

Please provide responses to the questions below by July 27, 2006, or sooner if possible. The requested information is required to respond to substantive comments that we received on the Revised Draft Environmental Impact Report. In your responses, please provide information regarding the engineering concepts at a level of detail commensurate with the information you provided in the application. While we recognize that a substantial amount of work may be required to respond to this data gap, the agencies are more interested in the quality of the product and would like to avoid multiple reviews. The date that the clock will restart and the overall project schedule are contingent upon developing adequate responses to the comments.

Data Gaps to Address Potential Hazards Associated With Proposed LNG-Fueled Support Vessels

27. What are the dimensions and volumes of the onboard storage LNG tanks for each of the service vessels (tugs, crew and supply vessels, etc.)? How do these compare to the size of LNG tanker trucks? If design cannot be adequately addressed in responses to Data Gaps #28 and #29, then please answer the following in detail:
 - a. What type of tank? (e.g., independent, structurally integrated)
 - b. Are proposed tanks at pressure vessel or atmospheric?
 - c. Will the tank have a secondary barrier or a nitrogen buffer?
 - d. Will the tanks be insulated?

28. What are the specific design standards that will be followed for construction of the LNG storage tanks and onboard regasification? Please provide the title of the design standards and specific references where available.
- What heat source and what type of the regasification equipment/process would there be on the proposed vessels?
 - What type of fuel would be used in the regasification equipment?
 - What is the rated fuel input capacity of the regasification equipment?
 - Are there any circumstances where such vessels would switch to diesel fuel use only? If so, what is the expected frequency and duration of such use?

We note the global information sources at the end of your 6/23/06 response 1 to Data Gap #3, but specific references would be helpful.

29. This question has three elements:
- Components: What are the specific components of the LNG refueling system on the FSRU, particularly those which would be connected to the vessel being refueled? Where would such equipment be located on the FSRU? How does such equipment interface with the LNG system(s) on the FSRU to allow the transfer of LNG?
 - Standards: What are the standards that would be followed for construction, use, and maintenance of the offshore LNG fueling equipment? Would existing international standards and practices (e.g., SIGTTO, OCIMF) be incorporated or would new, innovative procedures be developed by DNV or others?
 - Operations: Please describe LNG service vessel refueling procedures in a comparable level of detail as provided in the application for the LNG transfer procedures. Would more than one service vessel be refueled at the same time? Would the vessels be resupplied with diesel fuel at the FSRU also? Please confirm that the fuel tanks would be vacated during drydocking. What mitigation/contingency measures are envisioned in the event of an incident/emergency (spill, equipment failure, ignition, etc.), occurring during vessel fueling?
30. Would these vessels be U.S. flag? Would they be built in the U.S.? By whom would these vessels be crewed?
31. Would the frequency of these vessels' transits to and from the Port of Hueneme remain as stated in the Revised DEIR (p. 4.3-13)?
32. Are there existing, documented qualitative and quantitative hazard analyses of vessels comparable to those proposed for use in the proposed Project, or are there similar analyses for LNG transportation systems that are being considered during the design of these vessels?
33. Are there industry, state or federal standards/regulations that cover similar LNG carriage and fuel use in other transportation modes?

July 13, 2006

Page 3 of 3

34. Please provide the Norwegian Maritime Directorate document "Impact Assessment of Dual Fueled Engines."
35. Is DNV's "Gas Fuel engine applications in ships – experience with LNG fuelled ferries, supply vessels and LNG carriers" available? If so, please provide.
36. Are there special competency/training requirements and contingency plans for vessel crews on dual-fuel vessels?
37. Are there any accident or incident reports for such dual-fuel vessels?
38. To what extent would potential ignition sources on the vessels be isolated in the event of a release of either LNG or re-vaporized natural gas from such vessels?

Thank you for your attention to this request. Please feel free to call me with any questions.

Sincerely,

Ecology & Environment, Inc.

A handwritten signature in blue ink, reading "Cheryl A. Karpowicz". The signature is fluid and cursive, with a large loop at the end of the last name.

Cheryl A. Karpowicz,

Project Manager